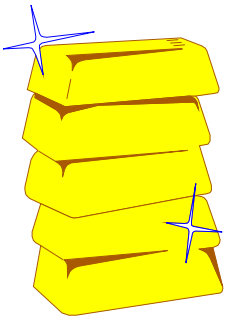
Office of the Administrator
Richard J. Connelly

Year 2000 Ergonomic plan for DNSC

Enhancement to our Quality of Life Plan

DNSC Commitment To a Healthy and Productive Workforce.



GOLDEN OPPORTUNITY

I am pleased to announce that t DNSC has adopted an Ergonomics plan as directed by the Deputy Under Secretary of Defense, Sherri W. Goodman. This plan is a golden opportunity to enhance our Quality of life. This plan will be adopted by all DNSC components.

Everyone's participation is required in this program and all are required to participate in order to make it successful. No one will be left **out**. This plan will make DNSC a role model agency within DOD.

This plan will be monitored as well as administered by DNSC-MH . All questions regarding this plan shall be directed thru Russell Bywaters or Jason Boynton.

DNSC ERGONOMICS PLAN

DNSC ergonomics program will consist of six major components:

1) **Management leadership and employee participation**
2) **Hazard identification and awareness**
3) **Job hazard analysis and hazard control**
4) **Training**
5) **Medical management**
6) **Program evaluation**

1) Management leadership and employee participation:

A collaborative partnership among all levels of the DNSC working community is essential in achieving the goals of the ergonomics program. Command emphasis, commitment by management, and demonstrated visible involvement are imperative to provide the organizational resources and motivation needed to implement a sound ergonomics policy. All levels of DNSC personnel (manager, supervisor, worker) are responsible for injury prevention.

Each DNSC manned facility including HQ will be part of a Ergonomics Committee. Chairpersons of this committee will consist of DNSC-MH Safety Manager, R Bywaters and Jason D Boynton. Other committee members will consist of a Depot safety officer and Union official where applicable. Each committee member as well as all personnel will receive training and guidance from the committee chairpersons. Each designated member will be responsible for the enforcement of the plan, and for providing necessary information as to the progress and problems to the committee chairpersons.

Each DNSC employee will receive ergonomics training and will be empowered with the responsibility of reporting “MSD” Muscular Skeletal Disorders injuries, and hazard areas that may cause MSD injuries. Each employee is responsible to make recommendations to committee members to address problem areas. Prompt reporting and employee awareness are the main tools in making the program successful.

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Goals of the program:

(1) Prevent injuries and illness by eliminating or reducing worker exposure to WMSD risk factors. Reduce the potential for fatigue, error, and unsafe acts by adapting the job and workplace to the worker's capabilities and limitations.
(2) Increase the overall productivity of the work force.
(3) Reduce workers' compensation claims and associated costs.
(4) Improve overall working environment.
(5) Early Identification and prevention of WMSDs

2) Hazard Identification and Awareness

Each task that DNSC personnel carry out each day will be evaluated to preempt WSD injuries. Each tasks will be researched to identify workplace conditions contribute WMSD. All employees will be trained to recognize potential hazards and report such hazardous to their community. Major occupational tasks to be monitored will be as follows:

(1) Repetitive motions (especially during prolonged activities).

(2) Sustained or awkward postures.

(3) Excessive bending or twisting of the wrist.

(4) Continued elbow or shoulder elevation (for example, overhead work).

(5) Forceful exertions (especially in an awkward posture).

(6) Excessive use of small muscle groups (for example, pinch grip).

(7) Acceleration and velocity of dynamic motions.

(8) Vibration.

(9) Mechanical compression.

(10) Restrictive workstations (for example, inadequate clearances).

(11) Improper seating or support.

(12) Inappropriate hand tools.

(13) Machine-pacing and production-based incentives.

(14) Extreme temperatures.

(15) Extended exposure to hazardous or annoying noise.

3) Job hazard analysis and hazard control:

All DNSC employees will be required to complete a worksite analyses form each year. This form will provide necessary information to acknowledge areas of ergonomic concern. Once the areas of concern are identified precautions can be taken to prevent hazardous work areas. Here are several components that will aid in hazard prevention:

Intervention hierarchy:

The primary method of preventing and controlling exposure to WMSD hazards is through effective design (or redesign) of a job or worksite.

Engineering controls:

Ergonomic engineering controls redesign the equipment or worksite to fit the limitations and capabilities of workers. Equipment or worksite redesign typically offers a permanent solution. For example, provide a video display terminal workstation that can be adjusted to a wide range of anthropometrical dimensions.

Substitution:

Substituting a new work process or tool (without WMSD hazards) for a work process with identified WMSD hazards can effectively eliminate the hazard. For example, replace hand tools that require awkward wrist positions (extreme wrist flexion, extension, or deviation) with tools that allow a neutral wrist posture.

Work practices

Practices that decrease worker exposure to WMSD risk factors include changing work techniques, providing personnel conditioning programs, and regularly monitoring work practices. Also included are maintenance, adjustment, and modification of equipment and tools as needed.

a. Proper work techniques include methods that encourage--

(1) Correct posture.
(2) Use of proper body mechanics.
(3) Appropriate use and maintenance of hand and power tools.
(4) Correct use of equipment and workstations.

b. Personnel conditioning refers to the use of a conditioning or break-in period. New and returning personnel may need gradual integration into a full workload, depending on the job and the person. Supervisors, trained ergonomics personnel, and health care personnel should identify those jobs that require a break-in period. Health care personnel should evaluate those personnel returning from a health-related absence and define the break-in period for each individual person (5 CFR 339.301).

c. Regular monitoring of operations helps to ensure proper work practices and to confirm that the work practices do not contribute to WMSD or hazardous risk factors.

d. Effective schedules for facility, equipment, and tool maintenance, adjustments, and modifications will reduce WMSD hazards. This includes ensuring proper working conditions, having sufficient replacement tools to facilitate maintenance, and ensuring effective housekeeping programs. Tool and equipment maintenance may also include vibration monitoring.

Administrative controls

Use administrative controls to limit the duration, frequency, and severity of exposure to WMSD hazards. Examples of administrative controls include, but are not limited to--

a. Providing rest breaks to relieve fatigued muscle-tendon groups. Determine the length of the rest break by the effort required, total cycle time, and the muscle-tendon group involved.

b. Increasing the number of personnel assigned to the task (for example, lifting in teams rather than individually).

c. Instituting job rotation as a preventive measure, with the goal of alleviating physical fatigue and stress to a particular set of muscles and tendons. Do not use job rotation in response to symptoms of cumulative trauma. This can contribute to symptom development in all personnel involved in the rotation schedule rather than preventing problems. Trained ergonomics and health care personnel should conduct an analysis of the jobs used in the rotation schedule.

d. Providing modified- or restricted-duty assignments to allow injured muscle-tendon groups time to rest, assisting in the healing process. Make every effort to provide modified- or restricted-duty assignments when physical limitations (as identified by a health care provider) allow the worker to return to work performing less than his or her normal work requirements. In regard to modified- or restricted-duty assignments:
   (1) A health care provider should specifically identify assignments or job tasks for the individual worker based on his or her symptoms, capabilities, and limitations.
   (2) Health care providers with specific knowledge in both occupational demands and cumulative trauma injuries should cooperate with trained ergonomics personnel to develop a list of jobs with low WMSD risk.
   (3) Civilian personnel representatives and supervisors, in conjunction with health care personnel, should identify modified-duty assignments and tasks and write descriptions for these assignments and tasks that conform to documented requirements. A combination of tasks from one or more jobs can be used as a modified-duty assignment. The description for each modified-duty assignment should include WMSD risk factors and muscle-tendon groups required to perform the job.

Personal protective equipment

Personal protective equipment (PPE) is not necessarily recommended for controlling exposure to WMSD hazards, since little research has been conducted to support claims of its usefulness. Appliances, such as wrist rests, back belts, back braces, etc., are not considered PPE. No purchases of PPE in regards to ergonomics are authorized unless approved by chairpersons "IEO" of the ergonomic committee. The Office of The Surgeon General does not support the blanket use of back belts as a back injury preventive measure. Antivibration gloves are an example of PPE that addresses WMSD hazards.

4) Training:

Education requirements

a. The (IEO) Installation Ergonomics Officers/ Chairpersons of an Ergonomics Committee
   (1) A minimum of 40 hours of formal ergonomics training. Formal training is classroom instruction, exercises, supervised worksite assessment, and individual learning assignments.
   (2) Training and experience sufficient to identify WMSDs and risk factors.

"Train the Trainer" concept:

The IEO or chairpersons will administer training programs in a pyramid fashion

a. Ergonomics chairpersons provide training to develop trained ergonomics personnel, meaning persons selected as the ergonomics committee, which will consist of the Depot safety officer and union representative where applicable. During initial implementation of the program all DNSC personnel will receive training by the IEO's

b. Trained ergonomics personnel "Committee Members"

(1) Shall be responsible to train others at the installation level, including supervisors and workers.

c. DNSC Field level training:

(1) Personnel who are potentially exposed to WMSDs should receive formal instruction on hazards associated with their jobs and equipment. Personnel should receive training at an initial orientation and annually thereafter.

(2) Specific training. New and reassigned civilian personnel who are potentially exposed to WMSDs should receive an initial orientation and hands-on training from trained ergonomics personnel and the immediate supervisor prior to being placed in a full-production position.

The initial orientation should include

(a) A demonstration of the proper use and care of, and the proper operating procedures for, all tools and equipment.

(b) Use of safety equipment.

(c) Use of safe and proper work procedures, such as proper lifting techniques.

5) Medical Management:

Ergonomics will be part of the existing Health Care management Program. Each DNSC facility has a contracted health care unit where annual physicals are conducted. Each facility will be given a ergonomic assessment evaluation form to be filled out by the Physician during the annual physicals. This will enable the physician to recognize WMSD. The evaluation will consist of the following:

a. Complete a medical and occupational history that includes--

(1) Job title or series, and number of years and months at that job.
(2) Prior work history.
(3) A detailed description of current job tasks and the amount of time normally spent on each task.
(4) A detailed description of symptoms to include location, character (such as burning, sharp, dull, pins and needles), severity, onset, duration, and exacerbating and relieving factors.
(5) Lost time or limited duty due to symptoms.
(6) Prior evaluation, diagnosis, and treatment of symptoms.
(7) Other existing medical conditions and history of trauma and surgery.
(8) Activities and hobbies outside of work.
(9) Current medications.
(10) Health care personnel should coordinate with trained ergonomics personnel to recommend duty assignments that will not aggravate a patient's condition.

Health care personnel should perform regular follow-up for patients being treated for WMSDs to monitor the efficacy of therapy and worksite intervention.

6) Program Evaluation

The IEO ensures evaluation of the ergonomics effort regarding program participation and effectiveness. Methods of measuring both of these elements are listed below.

a. Program participation.
   (1) Number of requests for ergonomic assistance by management occurring during a specified period.
   (2) Number of personnel suggestions related to ergonomics during a specified period.
   (3) Number of educational programs in ergonomics offered or number of personnel attending educational programs.
b. Program effectiveness.
   (1) Number of general or systematic identifications of potential WMSDs.
   (2) Number of detailed analyses conducted
   (3) Number of high priority listings relating to ergonomics.
   (4) Changes in the incidence and severity rates.
   (5) Changes in the incidence and severity rates of ergonomically related illness or injury reports filed.
   (6) Changes in the incidence and severity rates of ergonomically related illness or injury by department or unit.
   (7) Changes in the incidence and severity rates of lost- or restricted-duty time due to ergonomically related illness or injury.

(8) Changes in the number of new job reassignments due to ergonomically related illness or injury.

(9) Changes in productivity or production costs that can be attributed to ergonomic interventions.

Note: In some cases, there may be an increase in illness or injury reporting at the start of an ergonomics program due to increased personnel and supervisor awareness. This reporting rate will decrease as a well-managed, effective ergonomics program is integrated into the workplace.

Regular evaluation and review

a. The IEO and the ergonomics subcommittee--
   (1) Conduct at least a semiannual program evaluation and review.
   (2) Communicate the results of the program evaluation and review to top management and all workplace personnel.

b. The program evaluation assesses the implementation, progress, and effectiveness of the installation ergonomics plan. It should include—
   (1) A progress summary or program update.
   (2) A summary of results of external evaluations
   (3) Identification of trends, deficiencies, and corrective actions needed.
   (4) . Before and after surveys or evaluations of worksite improvements.
   (5) Observation of work practices to determine the effect of training and education.
   (6) Personnel surveys or interviews conducted by department, job title, or work area to monitor